



SECTION ONE Standard House Diets

Diet manual

Modified Electrolytes

High Calcium (1200-1500 mg) Diet

General Description

This diet encourages an increased intake of foods high in calcium.

Indications for Use

This diet is used to increase calcium intake in hypocalcemic states. Increased calcium intake may be indicated following parathyroidectomy. Major health problems which may be associated with prolonged low calcium intakes include osteoporosis, alveolar bone loss, and hypertension.

Nutritional Adequacy

In comparison to the Recommended Dietary Allowances, this diet is nutritionally adequate with the same exceptions as for the regular diet. In menu planning, attention should be paid to the content of oxalic acid in fruits and vegetables (see below) and phytic acid in cereals, grains, and nuts (see below). Both oxalic and phytic acids complex with calcium to form insoluble salts and can impair calcium absorption if calcium intake is not sufficiently liberal¹.

MAJOR SOURCES OF OXALIC ACID: Kidney beans; beets, leaves and roots; cashew nuts; chard; cocoa powder; collards; figs; gooseberries; peanuts/peanut butter; pecans; rhubarb; spinach; soybeans/tofu; wheat germ.

MAJOR SOURCES OF PHYTIC ACID: Almonds, brazil nuts; dried beans and peas; sesame seeds; soybeans/tofu; whole grains; wild rice.

Guidelines

The following listing of calcium content of foods is to be used in meal planning^{2,3,4}.

High Calcium Diet

Food Groups	Moderately High 60-150 MG	High 150-250 MG	Very High >250 MG
Dairy	<i>Cheese</i>	<i>Cheese</i>	<i>Milk</i>
<i>Serving Size</i>	Blue	American	Skim
Beverages & Yogurt -	Cottage (1/2 cup)	Mozzarella	Low Fat
1 cup	Parmesan (2 tbs.)	Cheddar	Whole
Cheese - 1 ounce	Frozen Yogurt	Edam	Buttermilk
Desserts - 1/2 cup	Ice Cream	Monterey Jack	Chocolate
	Ice Milk	Provolone	Milkshake
	Junket	Ricotta (1/4 cup)	Eggnog
		Swiss	
		Cocoa Mix	<i>Cheese</i>
		Instant Breakfast	Gruyere
		Drink Mix	Mysost
		Custard	Romano
		Pudding, Fortified	
		Pudding	
		Rennin Desserts	
Meat or Substitute	Anchovies	Sardines,	
<i>Serving Size</i>	Clams	with bones	
2 ounces	Oysters		
	Salmon, with bones		
	Shrimp		
Fruit & Vegetables	Dates	Collards	Kelp
<i>Serving Size</i>	Kumquat		
1/2 cup	Rhubarb		
	Black-Eyed Peas		
	Broccoli		
	Chard		
	Okra		
	Rutabaga		
	Soybeans		
	Tofu		
	<i>Greens</i>		
	Beet		
	Dandelion		
	Kale		
	Mustard		
	Spinach		
	Turnip		
	<i>Beans</i>		
	White		
	Kidney		
	Pinto		
	Lima		

High Calcium Diet

Breads & Cereals	100% Bran Pancake Waffle	
<i>Serving Size</i> 1 cup or 1 each		
Others	Combination foods made with milk, cheese, or dried beans Soups made with milk Pies: cream, custard, pumpkin, rhubarb Milk chocolate (1 ounce), Molasses, blackstrap (1 tbs.)	Rennin Tablet ¹
<i>Serving Size</i> 1 cup or 1 slice		

Suggested Meal Plan

Breakfast	Lunch	Dinner
Juice	Cream Soup	Cream Soup
Cereal	Cheese Entree or Meat	Cheese Entree or Meat
Egg	Potato	Potato
Toast	Vegetable	Vegetable
Margarine/Jelly	Salad w/Dressing	Salad w/Dressing
Milk	Dessert	Dessert
Beverage	Margarine	Margarine
	Milk	Milk
	Beverage	Beverage

References

1. Wilkinson, R. Absorption of Calcium, Phosphorous and Magnesium. In: Calcium, Phosphorous and Magnesium Metabolism. Churchill Livingstone, New York, pp:36-112, 1976.
2. Pennington, J.A.T. Food Values of Portions Commonly Used. Harper & Rowe, New York, (Current Edition).
3. USDA Handbooks 8-1 thru 8-9.
4. National Dairy Council. "The All-American Guide to Calcium-Rich Foods", 1986.